

# W5YI

National Volunteer Examiner Coordinator  
**REPORT**

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Fred Maia, W5YI, Editor, P.O. Box 565101, Dallas, TX 75356-5101

## ★ In This Issue ★

- Petition on Frequency Coordination
- License Exam Petition Denied
- N. Cal. DX Foundation Beacon Stolen
- Amateur TV from 22 Miles High
- Senator Goldwater to be Honored
- Blind Ham Searches for E.T.
- Desertation on QSL's & Postal Rates
- July VE Program Statistics
- July Amateur Licensing Statistics
- XIVth Summer Olympiad Coming
- Pirate Ship to Broadcast to Cuba
- Ham Heads Up NTIA Telco Study
- Protected Scanner Frequencies....
- Some Thoughts on Ham Spectrum

Vol. 10, Issue # 17    \$1.50    PUBLISHED TWICE A MONTH    September 1, 1988

## FCC REFUSES TO REDEFINE "FREQUENCY COORDINATOR"

**Karl V. Pagel, N6BVU**, of Orange, California, submitted a petition for rulemaking on April 19th asking the FCC to redefine the term "frequency coordinator" in the amateur services. A frequency coordinator under the current rule section is an individual or organization recognized in a local or regional area by amateur operators whose stations are eligible to engage in repeater or auxiliary operation.

A frequency coordinator recommends frequencies and, where necessary, associated operating and technical guidelines for amateur stations in repeater or auxiliary operation in order to avoid or minimize potential interference. Auxiliary operation involves remotely controlling, relaying or intercommunicating with other stations in a system of amateur radio stations. Repeater operation is the automatic retransmission of the radio signals of other amateur stations.

Pagel asked that the FCC redefine frequency coordinators "*in terms of recognition by regional owners or trustees of amateur repeaters, remote bases and auxiliary links,*" instead of recognition by all amateur operators in a region or locality whose stations are eligible to engage in repeater or auxiliary operation.

Pagel's premise is that most repeater users are transient operators who are unconcerned with the coordination process. He further believes that determining whether such users support a frequency coordinator is too difficult.

Pagel, who is currently embroiled in a Southern California repeater coordination dispute, argued that his proposed replacement definition would simplify frequency coordinator recognition ...because "existing owners or trustees of amateur repeaters, remote bases and auxiliary links, are readily identifiable ...they can be polled to determine which frequency coordinator has regional support."

The FCC ruled, however, "The petitioner's proposal runs contrary to the fundamental premise upon which the Commission originally adopted the current definition of frequency coordinator in 1986. At that time the Commission stated:

*"Several coordinators urged us to establish some mechanism to officially recognize local or regional coordinators. Others were concerned about the potential for abuse of power at the local level. Another concern was exclusive right to coordinate within a geographical area. It is essential that repeater coordinators respond to the broadest base of local amateurs, and consider the concerns not only of repeater owners but also of those users of spectrum affected by repeater operation. Their authority is derived from the voluntary participation of the entire amateur community: their recognition must be derived from the same source. We believe the new rules will assure that a coordinator is representative of all local operators."* (FCC Report & Order in Docket 85-22.)

The Commission reminded the amateur community that "Less than 3 percent of the amateur

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #2

September 1, 1988

operators eligible to place their stations in repeater operation have done so." There are more than 390,000 eligible operators with some 12,000 stations in repeater operation. The FCC also feels that the views and interests of existing repeater owners and those seeking to establish new repeaters "are often diametrically opposed."

In denying the Pagel petition seeking to redefine the term frequency coordinator, **Ralph Haller, N4RH**, Chief of the FCC's Private Radio Bureau said, "It is not evident that coordinators selected only by those already in repeater and auxiliary operation could also fully consider the concerns of all those eligible to use the spectrum affected by such operations. To emphasize the role of existing operations at the expense of prospective operations would be inconsistent with the Commission's desire to recognize and encourage the experimental nature of the amateur service."

[Denied by FCC Order, released August 15, 1988]

## LICENSE EXAMINATION PETITION DENIED

The FCC also denied another petition filed by a **William Cantwell** ....call sign and city of origin was not indicated in the Order. Cantwell requested three changes to amateur radio operator license examination system:

First, Cantwell proposed that each examinee be allowed to choose the format of the telegraphy examination. Cantwell listed such format choices as true and false, multiple choice, essay and straight copy. The second request is to give the Administering Volunteer Examiners (VE's) the authority to waive the telegraphy examination for any examinee who intends to operate solely on frequencies at 50 MHz and above in the voice mode.

The third request seeks examination credit for holding any type of commercial operator license issued by the FCC. These examinees would be given credit for the Technician operator license with frequency privileges at 50 MHz and above. Cantwell gave reasons to support his proposals.

The FCC said "With respect to the administration of a telegraphy examination, the Administering VE's determine each examinee's proficiency in telegraphy by preparing and administering a test message and grading the examinee's ability to receive a message. The format choices for the examination suggested by the petitioner are permissible.

The choice, however, is vested in the Administering VE's. To transfer the responsibility for the format choice to the examinees would place an unnecessary burden upon the VE's. This would require each VE to develop several new tests and change them at regular intervals. In the interest of efficient administration and grading of telegraphy examinations, it is not desirable to complicate further duties of the Administering VE's by requiring them to use the format choice selected by the examinee."

The Commission said "...amateur operator licenses are issued only to persons who demonstrate certain operational and technical skills. The requirement that only a qualified person can hold an amateur radio operator license is based upon provisions in the international *Radio Regulations Nos. 2735 and 2736* and the *Communications Act of 1934* as amended. **The Commission's policy is not to waive the examination requirements for any applicant.** Further, in 1983, the FCC carefully reviewed the operator telegraphy skill requirements in the amateur service. It was decided to retain the present structure which requires telegraphy skill for every class of amateur radio operator license."

"With respect to examination credit, Section 97.25(c) provides that credit will be given for any telegraphy element upon presentation by the examinee of a commercial radiotelegraph operator license issued by the Commission. The examination requirements for commercial radiotelegraph licenses are equivalent to, or exceed, those of the 20 words per minute Element 1(C) amateur operator license examination. Thus, provision is already made for telegraphy credit based upon holding a commercial radiotelegraphy operator license."

"The petitioner's request, however, would also exempt persons holding any commercial radiotelegraph and radiotelephone operator license from the *written* examination elements required for a Technician Class operator license. These examinations consist of question sets concerning the privileges of the Technician operator license. The knowledge needed to pass an examination for a commercial radiotelegraphy or radio telephony license is not the same as that needed to pass the written examinations for a Technician Class operator license."

The FCC said the present volunteer examiner systems were serving the Amateur Service well.  
[Denied by FCC Order, released August 15, 1988]

September 1, 1988

# W5YI REPORT

National Volunteer Examiner Coordinator

- **Holding VE Examinations?** Worldradio publishes monthly examination schedules by state. Send the test location (city/state), information examinees should have (date, advance registration, etc.) and the name/telephone number of a person to contact for further information to: *Worldradio, 2120 28th Street, Sacramento, CA 95818.* Deadline is 60 days in advance of your test session.

- The FCC has just released the *Final Rules and Regulations for the Aviation Radio Service - §Part 87*. The new rules, effective August 31, 1988, accomplish the same as anticipated for the newly proposed §Part 97, Amateur Radio Service Rules, i.e. removes unnecessary language, eliminates redundant sections, reorganizes certain rules into new tables and makes the rules easier to use. A 30% reduction in the size of §Part 97 was realized. The FCC hopes to reduce the size of the Amateur Rules by 40%.

- Tiare Publications has a new book out entitled "*Crisis Communications: a Handbook for Emergency and Survival Radio Monitoring*," written by Mark W. Johnson, N7DYS, of Fairfield, Idaho. Book covers all phases of emergency radio listening from needed equipment ...to the frequency listings of a wide range of agencies and groups involved in emergency communications. (\$10.95 from *Tiare Publ., P.O. Box 493, Lake Geneva, WI 53147; Tel. 414-248-4845*)

- Writing in his monthly column for *PCM*, the *Personal Computer Magazine for Tandy Computer Users*, Radio Shack's *Ed Juge, W5TOO*, tells computer buffs of "A PC application you may not have heard of" ...amateur radio packet communications. The excellent article lets non-amateurs know what it takes ...and what it is like to communicate nationally (via VHF) and HF internationally computer-to-computer via the radio spectrum. Juge is Director of Market Planning for the Radio Shack/Tandy Corporation. By the way, Radio Shack, has just started a Tandy Employees Amateur Radio Club. Hundreds of amateurs work for Fort Worth, Texas, based Radio Shack. PCM is privately published and is not a Tandy Corporation magazine.

- **DXPO-88**, sponsored by the *National Capitol DX Association*, takes place at the Best Western Inn, Falls Church, VA (Route 50), on October 8 and 9. Festivities start with a special Novice DX program at 9 AM. Attitude adjustment party scheduled for 5:30 p.m. on Saturday ...followed by the gala DXPO-

88 banquet at 7. Featured speaker will be *Father Moran, 9N1MM*. DXPO-88 concludes on Sunday (October 9) at 1 p.m. Details are available from *Stu Meyer/W2GHK* (2417 Newton St., Vienna, VA 22180.)

- The *Northern California DX Foundation's* W6WX beacon has been stolen! Sometime during the late afternoon on July 22, thieves entered the locked trailer at Stanford University which housed the Foundation's 14.1 MHz power-stepping beacon. Only the Kenwood TS-130, its power supply and the special controller were taken. Other equipment and expensive tools located nearby were not touched. W6WX had been on the air continuously for almost ten years as part of a unique beacon network which transmitted for one minute out of every ten at carefully controlled power levels ranging from 100 watts down to 100 milliwatts. DXers and propagation watchers use the network to determine the existence and quality of band openings to various parts of the globe. Other NCDXF beacons still remaining in the network include 4U1UN (United Nations/Geneva), KH6O (Hawaii), JA2IGY (Japan), 4X6TU (Israel), OH2D (Finland), CT3B (Madeira Is.), ZS6DN (South Africa), and LU4AA (Argentina).

- Now that NASA's shuttle flights appear on track again, *Joe Wolos, WA1OCK*, of Springfield, Mass., wants permission from the FCC to *rebroadcast all shuttle communications via amateur radio*. Wolos submitted a *Petition for Reconsideration* some time ago seeking a variance of the prohibition against broadcasting rule. The *Hampden County Radio Association* (W1NY) rebroadcast shuttle communications during the Tony England/W0ORE 1985 shuttle mission with great success. W1NY's rebroadcast of shuttle audio was output on 146.595 MHz and was picked up by thousands of scanner owners. It also resulted in two television interviews for club members and much positive publicity for amateur radio. Since an amateur was on board, the FCC granted a waiver of the broadcasting prohibition during the Tony England flight - but no such waiver exists for all shuttle communications.

## AMATEUR TV FROM 22 MILES HIGH

To test Amateur Television (ATV) in space, *Bob McAuliffe, W9PRD*, of Greensburg, Indiana, launched a balloon carrying an ATV transmitter this past summer. The five foot diameter balloon (22 feet when it burst at peak altitude) cost \$200 and

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #4

September 1, 1988

was filled with 90 cubic feet of helium. The equipment was lowered back to earth by a specially rigged parachute. Aluminum strips had to be attached to the balloon since the FAA required it be seen by radar.

The transmitting equipment was housed in a three-inch thick styrofoam box to protect it from the anticipated -45 degree Fahrenheit temperature. Launch of the balloon with its three pound payload was made from an airport near St. Paul, Indiana. The FAA said it rose to 115,000 feet before plummeting back to earth.

Thanks to the efforts of Indianapolis "foxhunters" the entire package was retrieved 86 miles from the launch site dangling from a tree. Color video was reported as far away as 400 miles from Ontario, Canada, on 439.25 MHz. Another planned balloon launch will be the first airborne ATV repeater using 910.25 MHz for the input and 439.25 for the output. This could link up ATV stations 600-700 miles apart. [Edited from *The Beacon, Indianapolis Repeater Association*]

## FCC DENIES AMATEUR PETITION

The FCC has denied and dismissed a petition filed February 25, 1988, by **Robert McAtee, AG5F**, of Abilene, Texas, seeking to amend the Amateur Radio Service Rules to add a provision that a letter signed by three Amateur Extra Class operator licensees could notify the FCC that an amateur station licensee had changed his/her address ...or had died. The Commission would then update their licensee records accordingly.

The petitioner argued that the FCC's licensee data base lists many persons who are deceased or who have moved without reporting a change of mailing address. Consequently, when McAtee uses the information in the FCC's data base for a mailing list, he incurs unnecessary expense because many of the letters end up in the dead letter office. McAtee said that his proposal would solve this problem.

The FCC said that McAtee "had focused on a problem that is inherent in the systematic keeping of records -- inaccuracy or non-currency of the data because of a failure by those responsible to advise the record keeper of changes."

"We do not concur, however, with the

petitioner's solution, because of the potential for error and abuse. The responsibility for keeping a mailing list current must be on the person who is the recipient of the right or privilege conferred," the FCC ruled.

"In the case of a decedent, the duty of notification usually falls upon a close relative or the executor of the estate. In our view, to allow other persons to contact the Commission regarding mailing list changes or the licensee's death would result in numerous errors and sham notifications. Thus, it is unlikely that the accuracy of the data base would be improved and it could, in fact, be made more inaccurate if the proposed amendments were adopted."

[Action for FCC Order, released August 11, 1988]

## SEN. GOLDWATER TO BE HONORED

Senator Barry Goldwater, K7UGA, has been selected to receive the third annual **AEA Amateur Ambassador Award** from Advanced Electronic Applications. Senator Goldwater was chosen from over 100 nominations of amateurs possessing the qualities of "ambassador" for the Amateur Radio Service.

Nominations were judged on the criteria of dedication to amateur radio, positive influence on those outside amateur radio, and initiation of special projects or programs to promote the amateur radio service. Of the many excellent candidates for the award this year, Goldwater was chosen for his life-long work in public service with consistent support of amateur radio.

The award will be presented at the 1988 ARRL National Convention in Portland. Mike Lamb, N7ML, President of AEA, will present the award and a check for \$1,000 to Senator Goldwater at the banquet on Saturday, September 10.

## BLIND HAM SEARCHES FOR E.T.

**The SETI Project** -- the Search for Extra Terrestrial Intelligence, once called insane, now has funding provided for it in President Reagan's 1989 budget. If the \$90 million, 10-year, comprehensive search for radio signals from another civilization -- trillions of miles away -- is approved by Congress, the project could begin by 1992 at the NASA/Ames Research Center, the Jet Propulsion Laboratory in Pasadena ...and at several "deep space" radio

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #5

September 1, 1988

telescopes.

Many SETI scientists think that if anyone in this generation is going to hear whispering from outer space, it will be **Kent Cullers**, 39, of Mountain View, California. "The reasons are many: his mathematical brilliance, his imagination, his willingness to work past midnight solving a problem that seems unsolvable." Kent, an Extra Class amateur and **WA6TWX**, has been blind since birth.

Kent had two early ambitions. One of them was to be a scientist and work for NASA. The other stemmed from his ham-radio enthusiasm, "...I was always trying to pick up distant signals from around the earth. I wanted to detect the most distant radio signal I could ever find."

In 1974 his wife read him a copy of *Cyclops*, a concept for detecting alien signals proposed by Dr. Bernard (Barney) M. Oliver, NASA's SETI chief, and other scientists. Their work showed that with present technology, we finally had the capability of picking up a radio signal sent from the other side of the universe. The technology involved the use of a sophisticated, superfast, *Multichannel Spectrum Analyzer* (MCSA), which can decode a broad range of signals.

Cullers visited NASA/Ames while still a student at Berkeley, and, over time, made friends with SETI scientists. In 1980, after Cullers became the first totally blind person to obtain a doctorate in physics from the University of California/Berkeley, he joined SETI at NASA/Ames and quickly made a name for himself.

Picking up radio signals with incredibly sensitive radio telescopes is the easy part. The trick is to find an intentional signal amid all the garbage. Cullers is now busy programming his knowledge of radio interference into SETI computers so they'll recognize all sorts of spurious signals -- from aircraft, microwave transmitters ...even car engines (spark plugs emit radio waves.)

Then NASA's *Deep Space Network* will sift through oceans of stellar noise looking for a radio signal with some pattern, some periodicity -- in short, something with some thought behind it ...and for the one sentence that says, 'Hi there, we're it.'

(Digested from August 1988 issue of *California Magazine*, "E.T., Phone California!", pages 54-61.)

## POSTAL RATES HAVE GONE UP 8 TIMES...

...since 1970 when Congress passed the *Postal Reorganization Act* and created the *Postal Rate Commission* ...an independent regulatory agency. Since that time, a first class stamp has risen 30% faster than inflation ...from 6 cents to 25 cents. Even so, the USPS loses money ...big money (\$223 million last year!) There have been five Postmaster Generals in the last five years!

The major problem seems to be that the postal service has no competition ..they aren't subject to the harsh discipline of the marketplace. The private express statutes prohibit anyone other than the USPS from carrying the mail. Furthermore the Postal Service reportedly pays 21% higher salaries than their private sector counterparts ...80% of the USPS operating budget goes for labor. Rather than increase productivity, the USPS simply passes on the costs to the consumer. Postage ...and the USPS seem to be getting out of hand.

No one knows this better than ham radio operators. The "penny postcard" QSL now costs 28 cents to surface mail direct to a foreign country ...36 cents for air mail (21 cents to Canada). "Via the bureau" can take months ...or years. In this day and age of addressable computer-to-computer messaging, it seems to us that there has got to be some way to efficiently send a legitimate "hard copy" QSL (serialized?) confirmation via amateur radio that is legally recognized by everyone as such. It certainly would be cheaper and quicker. Any ideas on how to reduce possible abuses? Could some ham stations be designated *Official QSL Distributor/Forwarders*? Could DX QSL records be kept in computers somewhere for later downloading when needed? It is something to think about.

The USPS needs to slim down. There is a big move underway to privatize the U.S. Postal System and a *USPS Special Projects Department* is now recommending that certain non-delivery functions be accomplished by private contractors. Electronic mail, overnight courier delivery and FAX are cutting deeply into USPS revenue. Most of the mail carried by the USPS is business related ...less than 10% is personal letters. The business marketplace is already expanding the use of automatic teller machines, credit/debit cards, telephone/cable ordering, ...home banking. At some point we may find that the so-called *paperless society* will mean that the postman is a vanishing breed.

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #6

September 1, 1988

## JULY VE PROGRAM STATISTICS

	<u>July</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
<b>No. VEC's</b>		<b>*75</b>	<b>*59</b>	<b>*61</b>
<b>Testing Sessions</b>		<b>328</b>	<b>318</b>	<b>378</b>
<u>VEC</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	
ARRL	50.0%	40.9%	42.6%	
W5YI	17.4	32.1	34.4	
DeVry	7.3	6.6	6.3	
CAVEC	7.6	4.1	4.2	
Others	17.7	16.3	12.5	
<b>Year-to-Date Sess:</b>	<b>2195</b>	<b>2538</b>	<b>2816</b>	
<b>Elements Administ.</b>	<b>4948</b>	<b>5712</b>	<b>6261</b>	
<u>VEC</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	
ARRL	55.6%	55.3%	49.7%	
W5YI	12.6	21.7	25.8	
CAVEC	8.8	6.4	6.7	
DeVry	6.6	3.3	3.4	
Others	18.4	13.3	14.4	
<b>Year-to-Date Elem.</b>	<b>39008</b>	<b>48921</b>	<b>55941</b>	
<b>Applicants Tested</b>	<b>3437</b>	<b>3437</b>	<b>3822</b>	
<u>VEC</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	
ARRL	54.8%	54.6%	49.4%	
W5YI	12.2	22.4	26.0	
CAVEC	8.3	6.1	6.1	
DeVry	7.4	3.9	3.4	
Others	17.3	12.8	15.1	
<b>Year-to-Date Tested</b>	<b>26805</b>	<b>30804</b>	<b>33323</b>	
<b>July</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	
Pass Rate - All	58.7%	62.3%	60.6%	
Pass Rate - W5YI	55.0%	56.1%	54.3%	
Applicants/Session	10.5	10.9	10.1	
Appl./Session W5YI	7.6	8.5	7.7	
Elements/Applicant	1.44	1.65	1.64	
Sessions Per VEC	4.4	5.4	6.2	
<b>Administrative Errors by VE's/VEC's</b>				
<b>July</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	
Defect. Applications	0.4%	0.6%	0.8%	
Late Filed Sessions	4.6%	3.5%	2.4%	
Defective Reports	1.5%	1.9%	2.4%	

### \*Note:

The FCC Considers ARRL, W5YI and DeVry to be 13 VEC's each since VEC's are appointed on a regional basis. The 13 regions are: Call Sign districts 1 through 0 plus Alaska (11), Caribbean (12) and Pacific Insular areas (13).

Source: Pers.Rad.Branch/FCC; Washington, D.C.

## JULY AMATEUR LICENSING STATISTICS

	<u>JULY</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
New Amateurs	1431		2806	870	1943
<b>Upgrading:</b>					
Novices	1125		1893	1224	1307
Technicians	283		615	237	408
Generals	369		667	251	330
Advanced	273		431	176	282
<b>Total:</b>	<b>2050</b>		<b>3606</b>	<b>1888</b>	<b>2327</b>
<b>Renewals:</b>					
Novices	N/A		289	204	287
Total:	N/A		4813	2766	3666
Purged:(*)	2416		2476	1537	1387
<b>Census:</b>					
Indiv. Oper.	410287		420193	428854	437266
Change/Year		+ 9906	+ 8661	+ 8412	
<b>Indiv. Operators by Class:</b>					
<b>Extra</b>	<b>Advan.</b>	<b>General</b>	<b>Tech.</b>	<b>Novice</b>	<b>Total:</b>
<b>July 1985:</b>					
37548	97565	116812	82389	75973	<b>410287</b>
9.1%	23.8%	28.5%	20.1%	18.5%	
<b>July 1986:</b>					
40282	98240	116884	85820	78967	<b>420193</b>
9.6%	23.4%	27.8%	20.4%	18.8%	
<b>July 1987:</b>					
42651	97906	114617	87759	83921	<b>428854</b>
10.0%	22.8%	26.7%	20.5%	19.5%	
<b>July 1988:</b>					
45716	98420	113405	98370	81355	<b>437266</b>
10.5%	22.5%	25.9%	22.5%	18.6%	
Club, RACES, (1985) (1986) (1987) (1988)					
& Military	2792	2684	2456	2336	
<b>Total Active</b>	<b>411079</b>	<b>422877</b>	<b>431310</b>	<b>439602</b>	
% Increase		+3.53%	+2.00%	+1.93%	
<b>NOTE:</b> * Purged licenses are those amateurs who failed to renew their licenses and whose 2 year grace period has expired. While the majority of amateurs letting their licenses lapse, are Novices, the percentage continues to drop:					
<b>Year:</b>	<b>Total Purged</b>	<b>Novices Purged</b>	<b>Novice Percentage</b>		
July 1986	2476	1879	75.9%		
July 1987	1537	1046	68.1%		
July 1988	1387	754	54.4%		

- The Government of the Republic of Korea has authorized amateur station 6K24SO (24th Summer Olympics) to exchange **third-party messages** for athletes and members of the United States Olympic Team with amateur stations in the United States during the period beginning 0001 UTC, Sept. 1 and ending 2400 UTC, Oct. 5, 1988. The FCC has no objection. International third-party message rules require that you identify the foreign station at the end of the communication. [ See §97.84]

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #7

September 1, 1988

• NBC has shipped their broadcast equipment (40 truckloads worth \$35 million) from the Republican National Convention in New Orleans to Seoul, Korea, where it must be ready for installation on September 1st at the site of the **XXIVth Summer Olympiad**. The games start on September 17th and last until October 2nd. NBC says they will shatter the mystique that ABC is the only network that can do an Olympics. They will stage 179½ hours of coverage ...75% of it live. Perhaps their largest undertaking, NBC is sending 1,110 people to Seoul ...production budget is a whopping \$100 million! Fifteen satellite news vans will be used, ...more than 100 TV cameras, 154 tape machines. A 66,000 sq. ft. facility has been built for them by a London contractor. It will be the first Olympics broadcast in stereo and new state-of-the-art sophisticated digital graphics devices will be used. POV (Point-of-View) cameras will be everywhere. NBC even tested putting one on a pole vault! Twenty-three Olympic sports will originate from 34 competition sites in and around Seoul. Broadcasts begin on September 15th. It should be interesting.

• The ARRL has petitioned for a 90 day extension of time for filing comments on **PR Docket 88-139** -- the rulemaking that seeks to streamline and clarify §Part 97, the rules governing the Amateur Radio Service. No word yet on whether the extension will be granted. Present comment period closes August 31.

• The *National Association of Broadcasters* has been successful in getting Congress to curtail further spending on **TV Marti**, the television version of *Radio Marti* - a government service that broadcasts to Cuba. The action was tacked onto a bill to fund the FCC. The present \$7.5 million funding for TV Marti is enough to cover initial 90-day testing but not regular television broadcasting. The USIA station was to transmit to Cuban audiences from a balloon floating at 14,000 feet over the Florida Keys. Now comes word that a group of Cuban exiles will begin their own anti-communist television programming from a pirate station aboard a 50-foot fishing boat in international waters. Sort of a present day *Radio Caroline* that broadcasts rock-and-roll to the British from the North Sea. Since *Tele-CID*'s broadcasts originate from international waters, they are not subject to FCC regulation. *Tele-CID* has an operating budget of \$1 million a year and is funded by "wealthy sympathizers." The station plans to broadcast six hours a day using programs recorded in a Miami studio. Broadcasters oppose the pirate TV

station fearing Cuban jamming retaliation of U.S. television stations. Cuba now has the capability to override U.S. satellite circuits in much the same fashion as the well-publicized 1986 *Captain Midnight* incident when a ham operator briefly wiped HBO from U.S. television screens.

• The Commerce Department's National Telecommunications and Information Administration has released a 127-page report on **U.S. Information Services**. The project manager of the massive NTIA study was **Fredrick Matos, W3ICM**, of Annapolis, Maryland. The indepth report covers all U.S. information services available via the telephone ...videotex, access/retrieval service, transactions, messaging, computing services, etc. Another section of the "book" covers information services available in foreign nations ...and potential new services (such as the use of CD-ROMs - optical data disks less than 5" in diameter that can store the equivalent of 195,000 pages of text). The principal recommendation is that the cable market should be opened up to telephone companies as transporters of others' programming ...to provide a "video dial tone."

• By unanimous vote, the FCC has now proposed just that ...that **cable should be permitted to offer telephone services, and vice versa**. In the years to come, the copper wire is certain to be joined by, and maybe even *totally replaced* by, glass. The FCC wants to foster competition. Phone companies are beginning to wire new homes with fiber-optic cables that have the capability to simultaneously carry all sorts of information services such as high-definition TV, videotex, video phones and other enhanced services over a single glass strand. But it will be a legislative *battle royal* before it all happens. It always is. People are basically opposed to change. The cable and telephone lobbyists are already swinging into action and the rule-making will be acted on by a different FCC than proposed it. Over-the-air broadcasters were initially concerned about the advent of television-by-wire. Now cable operators are worried about the friendly phone company. While coaxial copper cable systems will become archaic once fiber optic cabling takes hold, realistically broadcasters and cable operators will all be around for decades to come. The phone and cable company eventually could, however, be virtually indistinguishable. As FCC Chairman Dennis Patrick said, "There is no better way to solve market power problems than by providing for competition and open entry."

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #8

September 1, 1988

- On August 13-16, astronomers from many major international observatories gathered at the IAU (*International Astronomical Union*) Colloquium in Washington, DC, to discuss their concerns over **mounting deterioration of the skies**, ...light pollution, radio interference and space debris. Some quotes:

"Observing the heavens at radio frequencies is like trying to hear the song of the meadowlark during an outdoor rock concert."

"The more space junk in orbit, the more objects there are to reflect light down to the ground from the sun over the horizon. As of last week, NORAD was tracking 7300 large objects circling the earth, typically at velocities of 20,000 miles per hour. In another century, if the trend continues, a lethal layer will develop that astronauts might find it risky to travel through."

"Tethered balloons located along the U.S. border with Mexico, and which have down-looking radar systems to detect drug traffic by lowflying aircraft have been causing serious interference with one of the world's largest and most powerful radio telescopes located in New Mexico."

- The FCC has established a **policy regarding the printing of blank FCC forms** by private companies if they elect to do so as a matter of expediency and convenience. *The policy is as follows:* Blank FCC forms may be reproduced by private companies at their own expense provided the following conditions are met:

- (1.) Use a printing process resulting in a product that is at least comparable in quality to the original document, without change to the page size, image size, configuration of pages, folds or perforations, and matching as closely as possible the paper weight, paper color and ink color.
- (2.) Delete in its entirety any and all U. S. Government Printing Office (GPO) indicia that may appear in the margin(s.)
- (4.) Do not add to the form any other symbol, word or phrase that might be construed as personalizing the form or advertising on it.
- (5.) Except as specified above, do not delete from or add to any part of the form, or attach anything thereto.
- (6.) Assure that the form being reproduced is an edition currently acceptable by the Commission.

We suggest that all VE's obtain their *Form 610's* direct from the **FCC (P. O. Box #1020, Gettysburg, PA 17326, ATTN: Larry Weikert)** rather than use those which might deviate from the above guidelines. There is no charge.

- Radio Shack advises that they are now offering by special order **adaptive devices for disabled persons** who wish to use a Tandy computer. Data is input via scanning, alternative keyboards, or oral switches *using Morse code*. The devices require a special serial interface.

- **The Foundation for Amateur Radio** recently announced the 1988 winners of the twenty-eight scholarships which it administers. The scholarships, ranging from \$500 to \$2000 each, were open to all Radio Amateurs meeting the qualifications and residence requirements of the various sponsors. *The Foundation* is a non-profit organization representing fifty clubs in Maryland, D.C., and Northern Virginia. It is devoted exclusively to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

## **PROTECTED SCANNER FREQUENCIES:**

*To Block or not to Block? Cellular companies fear scanners as police, FBI search for a way to tap car phones; Problems for HF receiver owners too?*

"Any respectable dope dealer has at least a car phone, if not one of those portable jobs that you can carry around in a brief case," according to Detective Peter Werth of the Los Angeles Police Department narcotics unit. Werth was quoted in a July 30 *Washington Post* newspaper story titled "High Tech Helps Drug Dealers Evade the Law."

Cellular telephone transmissions are apparently so difficult to intercept that the FBI is "yearning" for a technological breakthrough that will make tapping cellular phones easy. The article described the many technical difficulties confronting law enforcement personnel who seek to eavesdrop on cellular telephones.

At the FCC, however, cellular telephone companies including NYNEX, GTE, Bell South and Bell Atlantic are very concerned that cellular communications are vulnerable to scanners. They are pressuring the agency to mandate blockage of cellular frequencies in receivers -- even though the Commission has already stated publicly that such blocking is "not practical." The Commission also noted that the *Electronic Communications Privacy Act (ECPA)* places no "direct obligation" on the FCC to do anything.

It began with a petition from Regency Electronics in March of 1987. Regency asked the FCC

NOVICE AMATEUR RADIO COURSE - Complete with 2 cassette Morse code course and illustrated textbook in a binder. Everything you need to know to become a Novice amateur radio operator - or to teach an

AMECO LICENSE PREPARATION MANUALS - Contain all Amateur Technician/General Radi - Jam - pn c - ron - jutip - hoi - cor - an - ide - Radi - and explanation why answer is correct

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #9

September 1, 1988

to require an advisory label on scanners that would state: "Improper use of this device may violate the provisions of the *Electronic Privacy Act of 1986* through intentional unauthorized interception of protected radio communications."

The Regency petition certainly attracted the attention of the cellular industry, which holds the position that scanner labels would allow scanners to pick up the 800-MHz cellular bands while eliminating any liability for manufacturing them. The *Cellular Telecommunications Industry Association* went to FCC Chief Engineer Thomas Stanley to argue against the label. In formal comments, CTIA told the FCC that "the manufacturers of scanners with the capacity to monitor cellular frequencies, and all components that enable that monitoring, have had every reason to know at least since adoption of the Privacy Act that their actions in the manufacturing, distribution and sale of these units will ultimately lead to the commission of untold numbers of violations of that Act." Other cellular carriers agreed with CTIA.

First-time reception of a cellular call with no "bad purpose" is a misdemeanor under ECPA. So far, no actions have been brought under ECPA against scanner owners ...or manufacturers. The ECPA does not prohibit manufacture of scanners, whatever the frequency range.

For the men in blue, tapping cellular conversations "still poses extreme technical difficulties that have not been completely solved," according to the *Washington Post*. "The problem for tapping comes when calls are handed off from cell to cell because the frequency changes are difficult to follow." In Chicago, the FBI has successfully arranged for cellular calls to be intercepted at the central switch and forced into a single landline, which is then tapped in the normal manner, the Post said. But this system apparently can't be standardized for use in other areas. The FBI has proposed that the cellular industry develop standard software to make tapping simpler.

If tapping cellular calls is so tricky, why the efforts at the Commission to block scanner reception? "The public's awareness of the availability and use of scanners will undoubtedly have a chilling effect on the use of cellular service and could severely inhibit what, until now, has been the explosive growth of the industry," according to New York-based NYNEX Mobile Communications. "Clearly,

the most effective way to preclude the interception of cellular conversations is to prohibit the marketing of equipment capable of scanning and monitoring protected communications," the company said. Observers wonder how the FCC could change its mind and require frequencies to be blocked -- particularly when communications protected by ECPA can appear on hundreds, if not thousands, of frequencies across the spectrum.

The city of Nashville, Tennessee, has what they feel is the answer to inappropriate listening by scanner owners. We understand Nashville has passed a law requiring that portable scanner owners be registered ...and charges a hefty \$100 fee for the initial registration. There is some question as to whether this represents scanner *licensing*. Annual renewals cost \$25. Registering a scanner also requires fingerprinting by the police. Thanks to the efforts of *Ron Tramel, KA4WYO*, amateur radio operators are exempt from the law. The ordinance may be aimed primarily at the improper monitoring of police frequencies rather than cellular phone calls.

Meanwhile, the *Association of North American Radio Clubs* (ANARC - an SWL group) is concerned that if the FCC does require an advisory label on receivers that can pick up ECPA-protected communications, shortwave receiver owners may be penalized. HF receivers can pick up the 26 MHz band used by broadcast radio and TV auxiliary stations to communicate with remote sites. This band is explicitly covered by ECPA, so presumably, HF radios would have to carry the proposed label.

ANARC noted that small portable HF receivers are often purchased by people who travel internationally. "If someone were to arrive at a foreign customs post carrying an electronic device labeled to indicate that it was capable of violating electronic privacy, one could reasonably fear that the traveller would be subject to considerable suspicion, and might even have his radio impounded," the association warned the FCC. "This could happen even in countries with no laws against possession of general coverage shortwave receivers, if the customs officials were not sure that that is the all the device was."

The FCC isn't expected to make up its mind until next year -- after the parties involved have had plenty of opportunity to lobby the next administration of FCC officials.

# W5YI REPORT

National Volunteer Examiner Coordinator

Page #10

September 1, 1988

## SOME THOUGHTS ON HAM SPECTRUM

Not much is new on the reallocation of 220-222 MHz to narrowband land mobile. Our initial report was based on attending the Commissioner's meeting on August 4th and the press conference held afterwards. There seems to be no changes or additions at this point. The FCC's *Office of Engineering and Technology* and *Private Radio Bureaus* will now get together and develop a game plan for the transition of Amateur to commercial ACSB operation. Determining the new service rules will necessarily be a very long administrative process. Amateurs can expect to have the use of 220-222 MHz at least for another year ...and probably two. Calling August 4th, "Black Thursday", the League has vowed to fight on. They will file a *Petition for Reconsideration* ...which is already in the works. Meanwhile, it would be prudent to start looking around for alternative spectrum for repeater control links and such. There will probably be a big migration to 450 MHz.

Not many of you are aware that we filed a *Petition for Rulemaking* on July 8, 1977 (assigned RM-2626) seeking to add a sixth (*Hobbyist*) telephony class of amateur radio operator license operating specifically between 220-222 MHz without a requirement for Morse code. This was before WARC-79 during the hey day of CB radio. We reasoned that it would serve as a stepping stone to amateur radio for many ...and also would allow communication between amateurs and their families.

We were concerned that much CB activity seemed to be totally "hobby" oriented - something that was never envisioned by the Commission. Citizens Band radio was really to provide small business communications. We also felt that it would be better for newcomers to the radio pursuit to get started in the true hobby service ...amateur radio - or at the very least the new class could provide an improved "bridge" to ham radio.

"*Hobbyist Class*" operation was to have been via a type-accepted FM, crystal controlled "push-button" operated transceiver with 64 channels, 17 of which to be authorized for repeaters. Since the spectrum was "shared" (amateur/fixed/mobile) we suggested that either CB or ham call signs be used. Eligibility included being informally instructed and passing a simple ham volunteer administered examination on operation of a 220-MHz transceiver and amateur procedure/courtesy.

The petition was drafted by *Gus Howard/W5KM*, an ex-FCC (Dallas) Engineer-in-Charge, and filed by a Washington attorney. It met with mixed reaction, but was denied and dismissed some four years later. I doubt if 220-222 MHz would have been taken from us if there were tens of thousands of "Hobby" stations operating there today.

I am concerned about the 420-430 MHz and 440-450 MHz ham-band segments where amateur operation is "secondary" to fixed/mobile/radiolocation. In 1983, the amateur service was discontinued north of "Line A" (near the Canadian border) and FCC-approved sharing with business radio already is taking place below it. I am particularly concerned about the future of the 902-928 MHz ham band since it too is shared with other services. Although a so-called ISM (Industrial/Scientific/Medical) band, 900 MHz spectrum is tremendously valuable and desired by many services. Amateur activity is virtually non-existent! The 1240-1300 MHz band is still another shared band - the 1240-1260 segment with Space-to-Earth Satellite Radionavigation. There are all sorts of navigation devices on the drawing board ...including some that provide digital road maps on dashboards of automobiles.

One of our readers, *Craig W. Dible, KB6LAK*, sent us a [July 20th Los Angeles Times] newspaper clipping headlined "*New Fire Radios Prove Worth in High-Rise Blaze.*" It highlights the trend of using the higher frequencies by the various radio services. The article tells how 800-megahertz signals penetrate through walls -- much better than the conventional "low-band" 30-MHz transceivers currently being used by the Los Angeles Fire Department. "High-band" radios, while more costly, have two advantages. "The 800-megahertz range will penetrate walls - steel, concrete..." and "...there are more frequencies permitting a number of on-going conversations to occur simultaneously without 'stepping on' one another." The Los Angeles Fire Department will begin using the new radios throughout the department beginning in October.

I don't have all the answers, but it appears that we need to take a hard look at amateur spectrum utilization. The public's need to communicate via the radio spectrum keeps increasing and there simply isn't enough to go around. We need to generate more activity if we are going to hang onto all the valuable spectrum we have. *Status quo* ham radio isn't going to do it. The thoughts are my own. See you in a couple of weeks. 73/Fred, W5YI